Met Office wins social media award

Description

The Met Office Name Our Storms campaign has won an award for the Best Public Sector Social Media Campaign

The Social Buzz Awards bring together individuals and companies at the forefront of social media offering an opportunity to highlight some of the best social campaigns.

This award highlights what a key role social media played in the launch of the Name Our Storms campaign and continues to play as the Met Office's pilot scheme starts its second year.

The Met Office joined forces with Met Eireann last year to launch the pilot project to name wind storms that were expected to affect the UK and Ireland.

The Met Office asked for storm name suggestions via social media and thousands flooded in. As the scheme got underway with Storm Abigail in November 2015 the names were quickly adopted by the public, the media, and the responder organisations. The first storm of the 2016/17 season Storm Angus was named on 20 November 2016.

Over the course of the 2015/16 season 11 storms were named, and it has already demonstrated that storm-naming can make a big difference to the communication of severe weather. Storm Angus on 20 November 2016

Derek Ryall, Head of Public Weather Service at the Met Office said "By naming storms more people were made aware of the approaching threat of severe weather and were able to act on this information. A YouGov survey based on the first seven storms showed that 55% of those surveyed took steps to prepare for stormy weather after hearing that a storm had been named. People were therefore better informed."

The Social Buzz Awards are now in their sixth year.

Date Created
December 2016

Storm Desmond – one year on

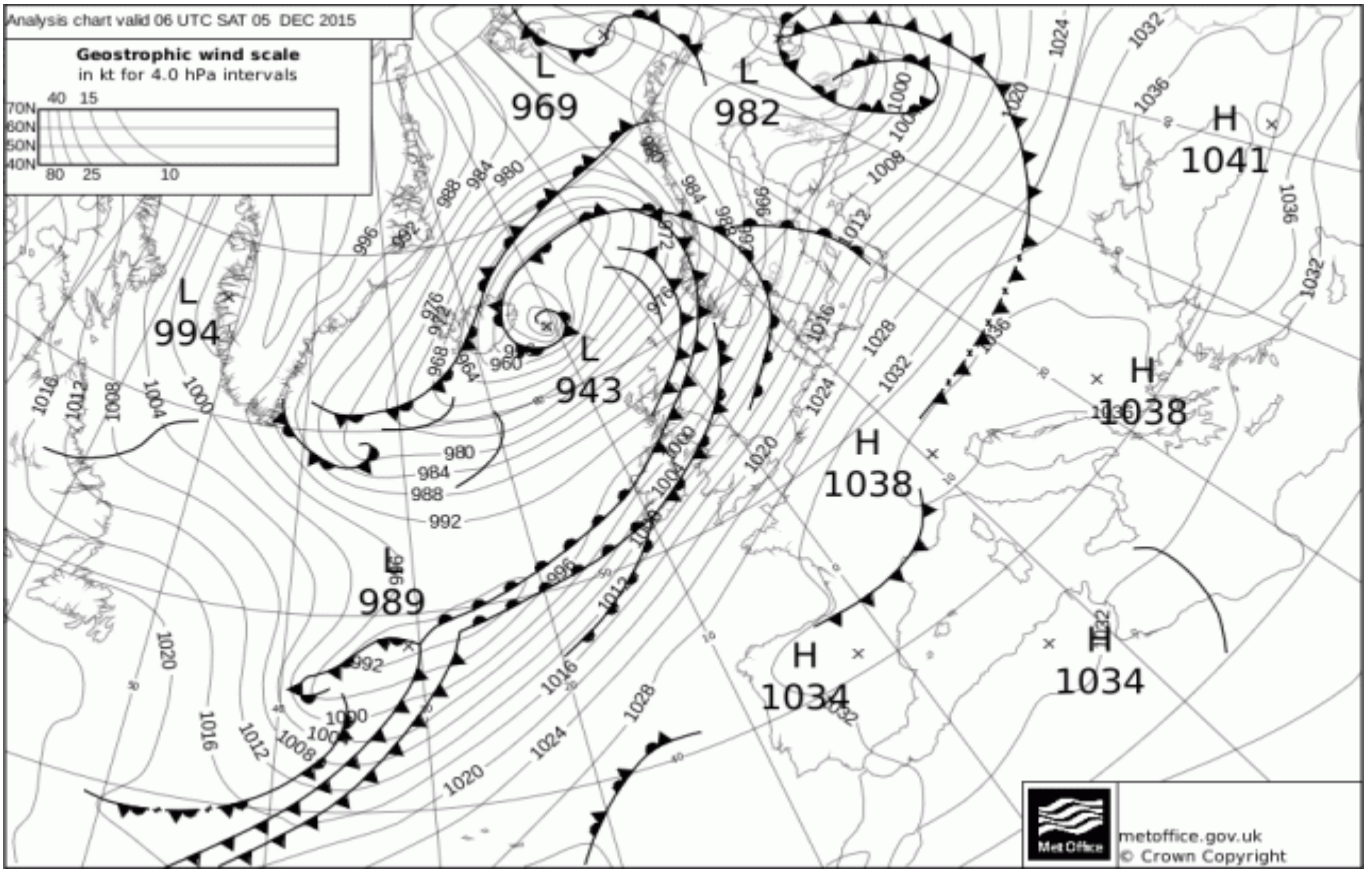
Description

Storm Desmond was the fourth named storm of the 2015/16 winter season. It brought severe gales with gusts of wind up to 81 mph together with record-breaking rainfall leading to flooding across parts of northern England.

It was associated with an exceptionally mild and moist air mass over northwestern parts of the UK. Desmond was named on 4 December 2015 and tracked to the north west of Scotland on the 5th and 6th. A very slow-moving trailing front brought heavy rain to southern Scotland, northwest England and parts of Ireland, with Cumbria and Lancashire receiving the most severe impacts.

While the Cumbrian coast received less than 25 mm of rain, 200–300 mm fell on the Cumbrian fells and Honister Pass recorded 341.4 mm of rainfall in the 24 hours up to 6pm on 5 December 2015: a new UK record. A new 48-hour record (from 0900 to 0900 hrs) was also set with 405 mm rainfall recorded at Thirlmere in just 38 hours.

Figures show it was the wettest and mildest December on record for the UK (dating back to 1910) (the mildest for England, Wales and Ireland, and the fifth mildest for Scotland).



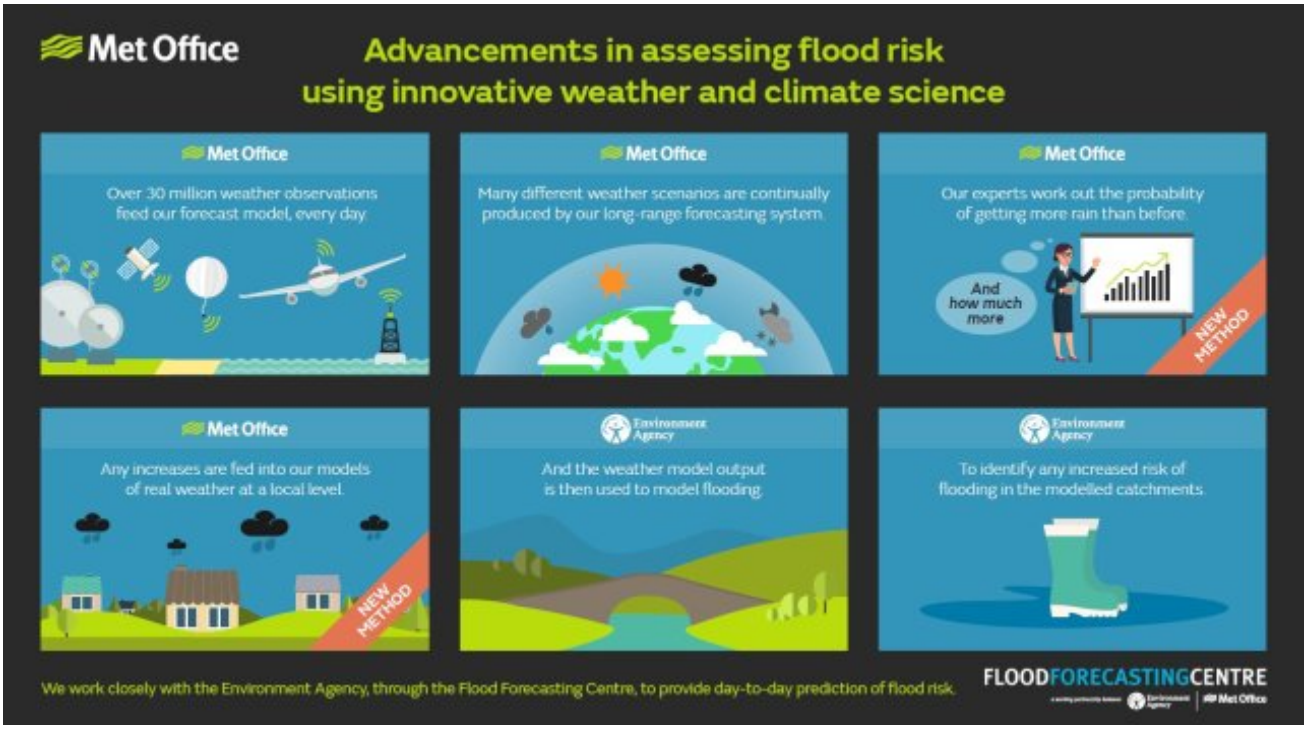
National Flood Resilience Review

Following the flooding events of last winter and as part of the National Flood Resilience Review (NFRR) the Met Office was asked to develop extreme rainfall scenarios that were scientifically valid and plausible.

Our novel and innovative approach was endorsed by the NFRR's Scientific Advisory Group and corroborated by results from the European Centre for Medium Range Weather Forecasting.

The state-of-the-art Met Office Hadley Centre climate model produced over 11,000 monthly rainfall scenarios for six large regions in England and Wales and for the current climate. These were used to sample many more cases than are available from existing observational records, including several hundred extreme regional rainfall events that are meteorologically possible but lie outside what has been experienced based on our observational records.

The chance of extreme events like these happening was then estimated. The results suggest there is a 1% likelihood every year that winter monthly rainfall totals could plausibly be 20% higher than recent past extremes in some parts of the country and in other areas up to 30% higher than recent past extremes. Over any of the large regions there is also around a 10% chance in any given year of existing monthly rainfall records being matched or broken.


Met Office
Advancements in assessing flood risk using innovative weather and climate science
Met Office
Over 30 million weather observations feed our forecast model, every day
Met Office
Many different weather scenarios are continually produced by our long-range forecasting system
Met Office
Our experts work out the probability of getting more rain than before
And how much more
NEW METHOD
Met Office
Any increases are fed into our models of real weather at a local level
NEW METHOD
Environment Agency
And the weather model output is then used to model flooding
Environment Agency
To identify any increased risk of flooding in the modelled catchments
We work closely with the Environment Agency, through the Flood Forecasting Centre, to provide day-to-day prediction of flood risk.
FLOODFORECASTINGCENTRE
An infographic summarising recent advancements in assessing flood risk using innovative weather and climate science.

This was used to produce enhanced rainfall data, which was run through the river models of six case studies chosen by the Environment agency as a stress test of their existing flood risk assessments. Using the techniques developed for the flood review, the Met Office will be looking to work withpartners on developing a more integrated flood risk modelling approach.

Radar

Meanwhile a major upgrade of the UK radar network for meteorology is almost complete providing more accurate, detailed data essential for successful forecasts and crucial for issuing warnings of heavy rainfall events.

Weather radar gives a live picture of precipitation (rain, hail, snow) present in the atmosphere and many may be familiar with radar images of rainfall from TV weather bulletins.

Behind the scenes, radar data are used to continuously update short range “nowcasts” and are used in our numerical weather models to improve forecast accuracy. Richard Bennett, Senior Project Manager said: “Scientific advances mean we can now capture the size and shape of raindrops as well as their composition (ice, water, snow), which will lead to improvements in accuracy of rainfall measurements, particularly during high impact weather events. ”

The changes will help ensure the Met Office continues to play a vital role in providing governments, commercial customers and the public with timely and essential weather forecast and real-time weather information.

Date Created
December 2016

Discovering women’s leadership potential in Antarctica

Description

Alison Davies, a Met Office meteorologist, is one of 76 women scientists from across the world chosen for a challenging expedition to Antarctica. Working at RAF Leeming in North Yorkshire, Alison is one of

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Alison said: “To say that I am excited by the expedition is an understatement! I realise that I am incredibly lucky to travel to a continent that I have dreamt of visiting since I was a child watching Antarctica documentaries on television. As scientists we will all have a chance to take part in some amazing research. However, studying Antarctica and the advancement of polar science is only one of the aims of Homeward Bound. By utilising the challenging environment of Antarctica, a key objective is also to focus on women in leadership roles and explore how having women at the leadership table might give humanity a more sustainable future.”

At 24, Alison is at the start of her meteorological career and she will be one of the youngest participants within the project. She added: “This expedition will give me a much better understanding of climate change issues as well as giving me an international network of contacts among women with interests in this field. I also hope the expedition will give me longer-term benefits for my leadership capabilities that will improve my performance as I progress in my career at the Met Office. I am ambitious, but I realise that reaching a senior position needs a range of skills and experience and I think this expedition will equip me with a unique set of skills and experiences.

Before her visit to Antarctica, Alison took advantage of snowy conditions in the UK to help prepare for her polar adventure. Pictures: Robert Cook.

“Working with so many successful and inspiring fellow female scientists will be an experience to remember and draw upon for the rest of my life.”

The expedition takes place during December. Setting sail from Ushuaia in Argentina, the team will spend three weeks exploring the Antarctica Peninsula by boat while learning about leadership skills and the scientific significance of the continent. The expedition leaders hope to visit bases belonging to many different nationalities on the Peninsula to gather differing views on climate science. Alison added: “We will also explore some rarely-visited areas and ones where some of the first intrepid explorers such as Shackleton landed.”

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Dattner said: “The Homeward Bound project is not only focusing on the astonishing expedition to the Antarctic but will be a ten-year outreach initiative that promotes women with a science background into positions of leadership affecting policy around the sustainability of our planet.”

Felicity Liggins is the Met Office STEM outreach manager. Commenting on the opportunities created by the Homeward Bound project for encouraging women to work in science, technology, engineering and maths (STEM), she said: “It’s 2016 and in the UK women still make up only 21 per cent of the workforce in occupations related to science, technology, engineering and maths. To help us improve this, it’s vital that girls at school and women throughout their careers see that leadership roles are open to them.

“Role models can really help in this, and the Homeward Bound project is a great opportunity for early career scientists like Alison to gain new skills, networks and confidence, eventually becoming role models themselves and providing inspiration to the next generation.”

As a major STEM employer, the Met Office aims to increase understanding of the real-world applications of these subjects.

Date Created
December 2016

From debate to action: early warnings for protection and resilience in Africa

Description

Gavin Iley, our Head of International Crisis Management and Resilience describes recent developments in Disaster Risk Reduction (DRR) in Africa.

It is just over a year since Storm Desmond caused severe flooding in parts of the UK, and eight months since heavy rain and flooding in a number of East African countries resulted in the displacement of almost 232,000 people and killed 271[1]. When I posted on the Foreign and Commonwealth Office (FCO) blog in September I highlighted the impact of flooding on the world's most vulnerable communities. That post related to a conference being delivered by Wilton Park, the Met Office and the World Meteorological Organization (WMO), entitled 'Flooding in the Greater Horn of Africa: building effective early warning systems'. I expressed my hope then, that the event would stimulate debate and dialogue in support of ongoing collaboration and lead to a real difference for communities at risk from the serious impacts of flooding.

Image supplied by Wilton Park

It's safe to say that the conversations and discussions did indeed address some of the challenges faced and the need for early warning systems (EWS) to be more effective in the Greater Horn of Africa (GHA) region. To summarise those discussions, Wilton Park have produced a report detailing the main points and conclusions, and I have highlighted some of the key themes below.

Sharing good practice

The conference provided an excellent opportunity to share good practice between the delegates, who included representatives from national meteorological and hydrological services (NMHSs) in the region, intergovernmental institutions, the World Bank and non-governmental organisations. Various current projects are highlighted in the report, including the WMO's Severe Weather Forecasting Demonstration Project, aimed at strengthening the capacity of NMHSs to deliver improved forecasts and warnings of severe weather. Details of the Department for International Development's WISER (Weather and Climate Information Services for Africa) programme are also shared. The Met Office is one of two fund managers for this programme and is involved in a number of projects in East Africa focussed on improving and developing user-led operational weather and climate information services.

Improving early warning systems

To those of us experienced in disaster risk reduction, it is evident that the chain of those involved in early warning systems in the region is long and complex. The disaster risk management process often results in the slow dissemination of warnings, particularly to remote and rural communities. The challenges of meeting the needs of these vulnerable communities means that users (those receiving the forecasts and warnings) are often not sure when and how to respond to warnings of severe weather. The discussions held at the conference concluded that five key areas require improvement to develop effective early warning systems in the region:

- **coordination** between NGOs/donors, nations, national organisations, NMHSs and national governments, and national governments and users of early warning systems (EWS)
- **communication** with communities through education, between suppliers and users of EWS, and using the media
- **institutional capacity** developing technology and data, investing in leadership development, and sharing good practice
- **ownership** at intergovernmental, governmental, national and community level and
- **empowerment of the user** ensuring they understand what action can be taken and that action is taken at the right time

What next?

While our discussions at Wilton Park highlighted the need to improve and enhance early warning systems in the greater Horn of Africa, they also demonstrated the continued relevance of the UNISDR (United Nations Office for Disaster Risk Reduction) EWS checklist. Therefore one concluding thought: 2017 will see the first Global Platform for Disaster Risk Reduction (DRR) since the historic agreement of the Sendai Framework for DRR in 2015. A great deal has changed since the EWS checklist was first developed and, thanks to the Sendai framework, the global DRR outlook also looks very different. Given the significance of 2017 to the global DRR community it feels like the right time to review the cornerstone of much of our work, the UNISDR EWS checklist, and bring this up to date to ensure it

remains relevant to us all for the next 10 years.

[1] Source: United Nations Office for the Coordination of Humanitarian Affairs (OCHA)

Date Created
December 2016

Met Office top rated app of 2016 helps you plan for Christmas

Description

The Met Office app allows travellers to make informed choices about the weather when planning their journeys.

Since it was launched six months ago, the Met Office app has been awarded 4* rating in the app

With

many people travelling this Christmas to spend time with friends and family, being aware of forecast weather can help them travel more safely. According to a recent Met Office survey, from slipping in bad weather to experiencing a car accident, four out of ten people across the UK have undergone a winter-related mishap. To help your Christmas travel planning, the Met Office has upgraded its popular weather app ahead of the festive season.

“In the run-up to Christmas, with people rushing to attend functions and visiting family and friends it can be all-too easy to dash out of the house before considering the weather,” says Dee Cotgrove, Executive Head of Media and Communications at the Met Office. However, our app upgrades means that it has never been easier to check the forecast. “Everyone wants to be prepared for Christmas, but we should also be thinking about preparing for winter weather too.”

This week the Met Office has released an update giving users the ability to customise the home screen of the app to show the next seven days of weather for their chosen places, or the next few hours. This gives you the freedom to view the weather in the way that is most useful to you, depending on what you are doing. During the Christmas period you can keep track of the weather across a number of locations that are important to you, using the day view during the countdown to Christmas or the hourly view, such as on Christmas Day itself, to see when it’s best to head out and stroll off those mince pies.

Customer feedback

Part of the app’s popularity has evolved from the Met Office’s strong focus on understanding the needs of their users. The developers review every piece of customer feedback are continuously testing updates and new features of the app with users.

Nikki Peckham, Senior Digital Product Owner at the Met Office, added: “As we continue to learn about our users we continue to develop and improve the app. A unique feature of the Met Office Weather app is the presenter-led video forecast which is updated three times a day. Users also like our new weather warnings map and our real-time alerts of potentially hazardous weather. Early in 2017 we will provide an interactive map featuring forecasts and observations.”

Key features of the app include:

- Multiple locations giving forecasts for your home, place of work and where friends and family live
- Toggle to view hourly or daily forecast for chosen locations

- National forecast video
- Probability of rain, sleet, snow, hail, and drizzle
- UK National Severe Weather Warnings

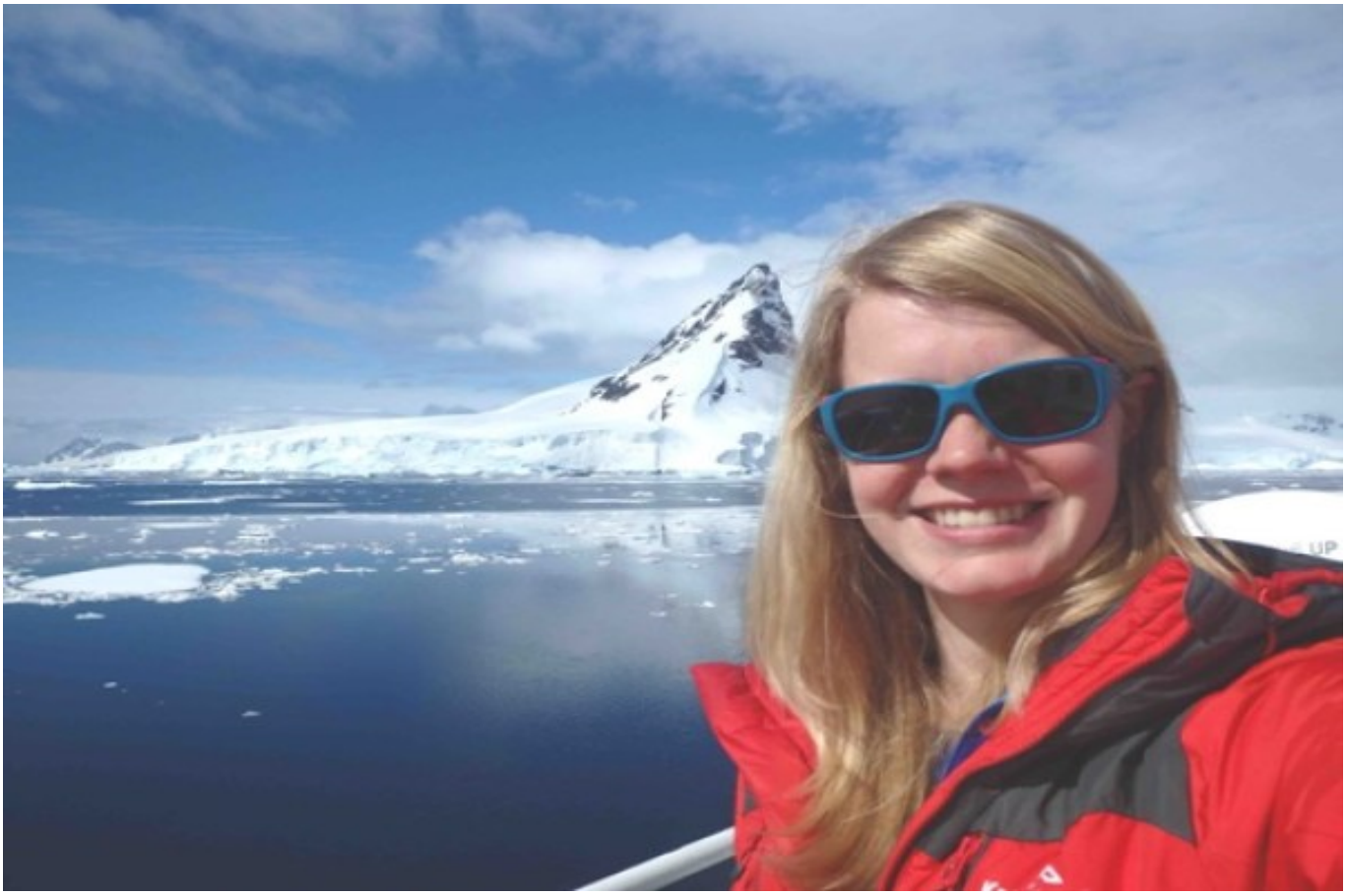
This week also marks the start of our Christmas app campaign.

You can find the Met Office app by searching ‘Met Office’ in app stores.

Date Created
December 2016

A voyage to Antarctica to find yourself

Description



Met Office meteorologist Alison Davies has been one of four UK women experiencing the journey of a lifetime to Antarctica this month, with the Homeward Bound international expedition.
On her way home for Christmas, Alison took time on board her vessel in the Gerlache Sound, off the Antarctic Peninsula, to reflect on a life-changing voyage which has seen her develop her leadership skills and extend her knowledge of polar science and Antarctica.
In her journal, she says: “Outside, icebergs pass the portholes and every now and again there is a crunch as the boat breaks through a thin iceberg on our passage south. We are surrounded by snowy mountains and patches of rock peaking through snow and ice. Everywhere you look glaciers pour down mountains and end at the sea with crisp, vertical faces of ice. It is a magical place: silent, except for the noise of the boat and, very occasionally, a crash from newly-formed icebergs calving from the glacier front.”

Understanding emotional intelligence
Contemplating the leadership elements of the expedition, she added: “I am now on the final leg of the Homeward Bound expedition, which has the aim of developing women for leadership roles. So far we have focused on learning about ourselves: as to know how to lead others, you first have to know yourself.

“We have been encouraged to answer the following questions: Who am I; and what causes me to act the way I do? This challenge gave me quite an insight into how I act, particularly when I am stressed; and what I need to work on if I want to behave more constructively when under stress. There was a lot to digest and improve upon with the aim of developing more constructive styles enabling more effective leadership.

“From my Homeward Bound adventure, I realise that a big part of leadership is understanding emotional intelligence, including my own. The training developed a range of skills including how effective we are at ‘recognizing our own emotions and the emotions of others’. I was fascinated by how to use emotions in problem solving, as well as understanding emotions and how they evolve with time, and how to manage our emotions and the emotions of others.”

The gentoo penguin is one of the more familiar species of Antarctic wildlife.

As well as the journey of personal discovery that Alison has been embarking upon, there is also the physical journey. Alison continued: “After leaving Ushuaia, at the beginning of our journey, we crossed the infamous Drake Passage. I had heard many horror stories about the crossing, but we were treated to the ‘Drake Lake’, as the sea was very calm. It wasn’t long before we were exploring the South Shetland Islands and spotting our first penguins and icebergs. We visited many of the islands, including Deception Island which surrounds a volcano. Some of us went for a bracing polar plunge.”

Exploring the wildlife

During her journey to the Antarctic continent, which included a landing, Alison reported seeing a lot of sea ice. The wildlife is a highlight of any trip to Antarctica, and Alison’s was no exception. She said: “We saw three types of penguin: Adelie, gentoo, and chinstrap in abundance. We have also been treated to a display of multiple humpback whales feeding on krill, and many different types of seal, including elephant seals.

“Antarctica is an amazing location and perfect for when you need a moment of reflection or a sense of

perspective on the world.”

A female southern elephant seal takes time to inspect the expedition team during a shore visit. All pictures Alison Davies

Date Created
December 2016

Has the weather played a role in bringing unusual birds to Britain during 2016?

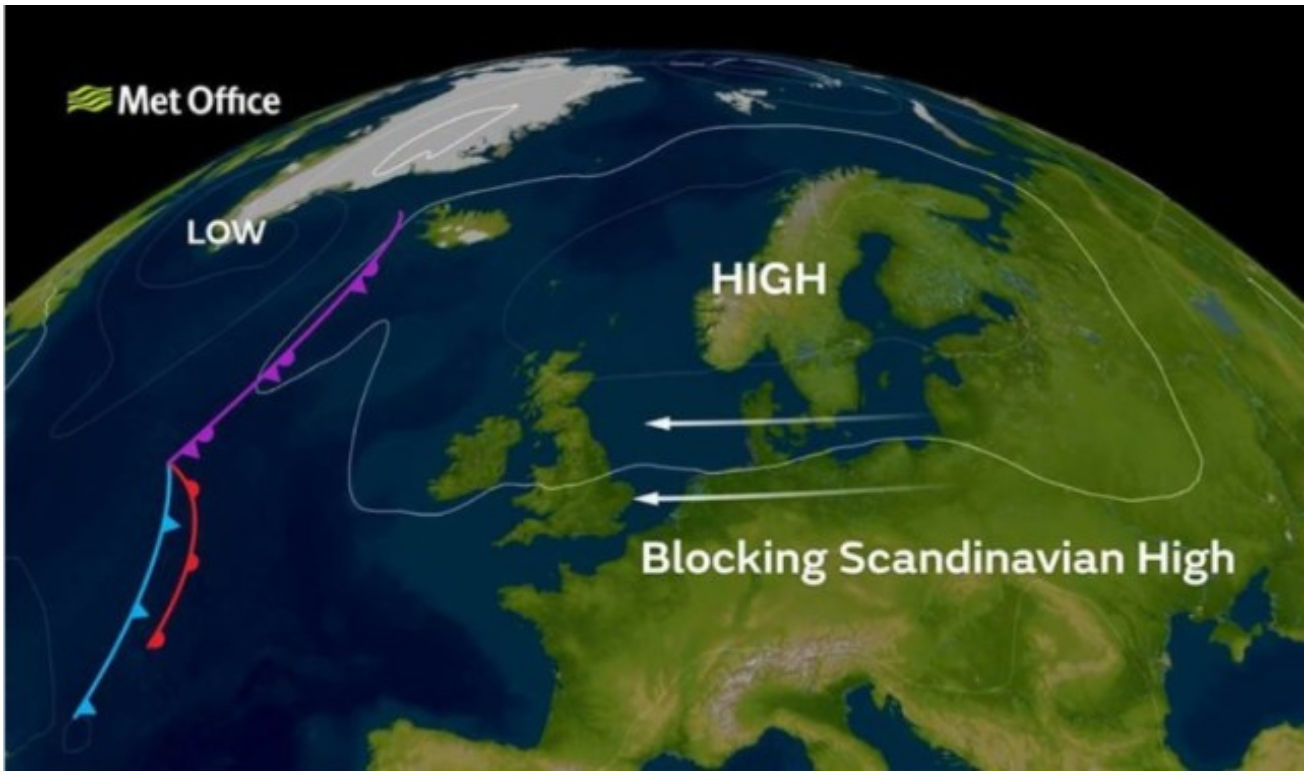
Description

October’s easterly winds brought a dozen Siberian accentors to Britain’s east coast – including this individual on Shetland. The species had never been seen in the UK before. Picture courtesy Sean Cole

With our position on the edge of northwest Europe, the UK receives air masses from all points of the compass during the year adding to the natural variability of our weather. This fact is known by meteorologists and birdwatchers because when air masses approach the UK during bird migration times – principally spring and autumn – then exotic birds from other parts of the world can unexpectedly arrive on our shores.

Grahame Madge is a Met Office spokesman and keen birdwatcher. He said: “From a birdwatcher’s point of view at least, 2016 has been a remarkable year with several species never seen before arriving from different parts of the world, and it’s believed the weather has played a large part in their arrival.

“Although these records will need to gain acceptance before they are included on the official British list, there is little doubt that the weather has encouraged their arrival.



High pressure centred over Scandinavia during October created easterly winds bringing birds from Siberia to the UK.

The mini influx of Siberian accentors allowed bird photographers to obtain breathtaking views. Picture courtesy of Paul Hackett.

“One of the more surprising arrivals followed the easterly winds the UK experienced during autumn. The Siberian accentor is a brightly-coloured relative of the dunnock – a familiar, but shy, British garden bird. For many years birdwatchers have been thinking optimistically that a Siberian accentor would turn up in Britain. And on 9 October the hopes of Britain’s birdwatchers were rewarded with the arrival of a bird on Shetland – a potential first sighting for Britain. The bird is believed to have arrived on the back of easterly winds fuelled by an area of high pressure sat over Scandinavia which dominated weather conditions during the month. These weather conditions had coincided with an eruption of these birds into northern Europe when several hundred were seen, including, remarkably, another 11 peppering the East coast of Britain from Shetland to Yorkshire.”

Grahame Madge continued: “In autumn the UK receives a fair proportion of its weather from the northern Atlantic, and the prevailing weather systems will sometimes sweep birds from North America to the coasts of northwestern Europe, including the UK. With the autumn dominated by easterlies, there was less of westerly influence within our weather, but the second half of September was changeable with frequent frontal systems and a spell of windy weather in Scotland coincided with the first UK appearance on Barra of an eastern kingbird – a songbird which should be more at home in September in the West Side of New York, rather than the Western Isles.

“A warm spell of weather in May, combined with easterly and south-easterly winds, is thought to have been partly responsible for the arrival of a Dalmatian pelican and a type of vulture – known as a lammergeier or bone-breaker. Both of these birds – which are inhabitants of south-eastern or southern Europe – are reluctant long-distance fliers, so a tail wind could easily have aided their journey to the UK.

“There are some doubts about whether the pelican will be accepted as a wild bird as this individual is of unknown origin. It had been spotted in Poland, but from a weather point of view its origin doesn’t matter: the bird still made the journey to the UK, most likely assisted by the weather.”

Norman – the red-footed booby – was among the more unusual bird visitors to the UK during 2016. Picture courtesy: RSPCA.

Apart from Siberia, North America and Europe, the tropical Atlantic is an origin for some birds recorded in Britain and Ireland. Perhaps one of the most unusual birds to arrive in the UK during 2016 was a red-footed booby – a type of gannet from the tropical Atlantic – which was found beached in East Sussex in September. Not many birdwatchers will have seen the bird in the wild as the underweight individual was taken into care, finally arriving at the RSPCA's Mallydams Wood centre. Never recorded before in the UK, this bird had a long journey to arrive here as the species is more familiar in the Caribbean and the western part of the tropical Atlantic. However, unlike most birds which arrive accidentally on our shores this individual – Christened Norman – had an easier return journey as it has been flown to the West Indies.

RSPCA wildlife vet Barbara Watson flew alongside Norman to keep an eye on his progress and carry out vet checks before and after the flight. Barbara said: "I never imagined in my career I would be asked to treat a red-footed booby, as they have never been seen over here before. It is so wonderful to be able to take Norman back to the wild where he belongs.

"It is incredible to think how he got to the south coast of England – I don't think we will ever really know how – but it is amazing and we are really grateful to everyone that has had a hand in helping him to get him back home safely."

Grahame Madge added: "The red-footed booby is perhaps one of the most unlikely birds to have occurred in the UK. Hopefully Norman will remain in the Caribbean, among his own kind, but who

knows whether a hurricane will dislodge him or one of his companions and send him or another tropical seabird in our direction.

“It’s often believed that birds can predict the weather. There isn’t a lot of evidence for that, but what we do know is that the arrival of birds can be a good indicator of weather, sometimes even in other parts of the world.”

Date Created
December 2016